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SHERIDAN ROSS P.C.
1560 BROADWAY, SUITE 1200
DENVER, CO 80202

EXAMINER
CHONG CRUZ, NADJA N

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>01 December 2009</u>.

2a) ☒ This action is **FINAL.**   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>55-76,78-88 and 90-100</u> is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>55-76, 78-88 and 90-100</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a) ☐ All   b) ☐ Some * c) ☐ None of:

   1. ☐ Certified copies of the priority documents have been received.

   2. ☐ Certified copies of the priority documents have been received in Application No. _____.

   3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>12/29/09, 9/25/09 & 2/10/10</u>

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____

<center>DETAILED ACTION</center>

<center>Status of Claims</center>

1. This is a Final office action in reply to the response filed on 1 December 2009.

2. Claims 77, 89 and 101 have been canceled.

3. Claims 55-66, 69, 72-76, 78-81, 84, 86-88 and 90-94 have been amended.

4. Claims 55-76, 78-88 and 89-100 are currently pending and has been examined.

5. Examiner notes that on the previous office action mailed on 9/2/2009, the header for the rejection under 35 USC § 103 claims 95, 99 and 100 was inadvertently omitted. See page 15 for the rejection of claim 95 and page 19 for claims 99 and 100.

<center>Response to Amendment</center>

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action.

7. The objection of claims 58, 69, 72, 77, 81, 84, 89, 93, 94, 96 and 101 in the previous office action is withdrawn, in response to Applicant's amendments.

8. The rejection of claims 55-101 under 35 U.S.C. 112, first paragraph is withdrawn in light of Applicant's amendment.

9. The rejection of claims 57, 59, 69-70, 81-82 and 93-94 under 35 U.S.C. 112, second paragraph is withdrawn in light of Applicant's amendment.

10. The rejection of claims 78-89 under 35 USC § 101 paragraph is withdrawn in light of Applicant's amendment.

<center>Claim Objections</center>

11. Claim 64 is objected to because of the following informalities:

12. As per claim 64 recites [...] after the receiving step (f), as per the amendments the receiving step is step (i). Appropriate correction is required.

Claim Rejections - 35 USC § 112

13.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

14.   Claims 55-76, 78-88 and 89-100 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

15.   As per claims 55, 78 and 90 recites *the processor comparing the first bid and second bid; based on the comparison, the processor selecting the first bid*. Examiner is not clear why a comparison is made between the two bids, when the claim states basically that the selected bid will be always the first bid. Appropriate correction is required.

16.   As per claim 62 recites *comparing the received bids with a maximum acceptable bid*. Examiner is not clear why the comparison is made when as discussed above, the first bid is always selected. Appropriate correction is required.

17.   As per claims 55, 78 and 90 recites *the types of enqueued contacts, the priorities of enqueued contacts* and *the times*. There is insufficient antecedent basis for these limitations in the claims.

Response to Arguments

18.   Applicant's arguments received on 1 December 2009 have been fully considered but are not persuasive.

19.   In particular Applicant argues that the prior art of record, specifically Philonenko (1) does not teach *the processor monitoring the first queue for a plurality of wait times associated with enqueued work items in the first queue, an occupancy of the first queue, a number of available members of the first set of resources to service enqueued work items in the first queue, the types of enqueued contacts in the first queue, the priorities of enqueued contacts in the first queue, and anticipated workload levels for the members of the first set of resources* (pages 16-17, first paragraph); (2) that BT does not teach *based on the results of the monitoring step, the processor determining that the first enqueued work item in the first queue, cannot be serviced by the first set*

of resources … based on the results of the monitoring step, the processor determining that the

first enqueued work, in the first queue, must be put up for bid to meet a predetermined business

policy, objective or goal for a type of contact corresponding to the first enqueued work items and

that *the claim requires that a determination be made as to whether a bidding process should be*

completed for a work item (pages 17-18, second and first paragraph); (3) that BT and Philonenko

does not teaches *based on the results of the monitoring step, the processor determining that the*

second enqueued work item, in the first queue, can be serviced by the first set of resources to

meet a predetermined business policy, objective, or goal for a type of contact corresponding to

the second enqueued work item, Claim 55 requires that the processor determine that a second

enqueued item can be serviced by a first set of resources and should not be subjected of a

bidding process (page 18, first paragraph); (4) BT does not teach *the processor determining the*

times to initiate and complete the bidding process, wherein the time is a function of an estimation

of when the predetermined business policy, objective, or goal will be violated in the absence of

servicing of the first work item and *the OSS agent 31 never makes a determination to start a*

bidding process and *OSS does not determine the bids will be received from time 0 to time x, as*

claimed (pages 18-19, first paragraph) and (5) *BT does not describe a first set of resources* (page

19, last paragraph).

20.   In response to argument (1). Examiner respectfully disagrees. Philonenko does teach *(c) the*

processor monitoring the first queue for a plurality of wait times associated with enqueued work

items in the first queue, an occupancy of the first queue, a number of available members of the

first set of resources to service enqueued work items in the first queue, the types of enqueued

contacts in the first queue, the priorities of enqueued contacts in the first queue, and anticipated

workload levels for the members of the first set of resources in ¶ 0039: "[t]he CTI application

monitors switch 21 for incoming calls to a routing or call distribution point. The status of

telephones at agent stations is also monitored" (e.g., a number of available members), "so the

application has access to real-time information as to which logged-in agents are busy on a call

and which are not" (e.g., an occupancy of a selected queue, a number of available members), ¶

0055 which teaches a type of enqueued contact e.g., call 2 requires a Spanish-speaking agent, ¶ 0111 which teaches that "[t]his concept may be practiced to help load balance busy agents without losing clients due to long waiting periods (e.g., a plurality of wait times of selected enqueued work items) and see also figures 3 and 4 which illustrates the priorities of enqueued contacts "priority assignment" and anticipated work load levels "Calls Waiting Queue", see also Abstract: "one data queue for queuing incoming events".

21. In response to argument (2) that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., *the claim requires that a determination be made as to whether a bidding process should be completed for a work item*) are not recited in the rejected claim(s). The claim does not recite as to whether a bidding process should be completed or not since the claim recites that "the first enqueued item, in the first queue, must be put up for bid", With regard to the newly added limitation *based on the results of the monitoring step, the processor determining that the first enqueued work item in the first queue, cannot be serviced by the first set of resources*, Philonenko teaches in Figure 4 that the first set of resources, e.g., agent 1 is busy, therefore the work item e.g., call is assigned to agent 2, see also ¶ 0060. Further, BT teaches *the processor determining that the first enqueued work, in the first queue, must be put up for bid to meet a predetermined business policy, objective or goal for a type of contact corresponding to the first enqueued work items* in ¶ 0014 that "[t]he OSS agent 31 prices the work item" (e.g., a first enqueued work item in the first queue for a bid) "using a cost function that reflects its business priorities for example the urgency to work with respect to penalty clauses" (e.g., to meet a predetermined business policy, objective or goal for a type of contact), "or the value of the customer according to some model (step s4).

22. In response to argument (3) that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., *that the processor determine that a second enqueued item [..] should not be subjected of a bidding process*) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988

F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).). Further, Philonenko teaches *based on the results of the monitoring step, the processor determining that the second enqueued work item, in the first queue, can be serviced by the first set of resources to meet a predetermined business policy, objective, or goal for a type of contact corresponding to the second enqueued work item* in ¶ 0055: "[a]ssume call 2" (e.g., second enqueued work item) "requires a Spanish-speaking agent and is now being placed and that agent 3 is now reported busy with call 1 (last placed call) with the status of agents 1, 2, and 4 being unchanged. In this instance, call 2 (now call 1) would be routed to agent 4."

23.   In response to argument (4) that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., *determine the bids will be received from time 0 to time x*) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).). Further BT teaches in ¶ 0014 that "[t]he OSS agent 31 prices the work item using a cost function that reflects its business priorities, for example the urgency to work with respect to penalty clauses" (e.g., violation in the absence of servicing the first work item), "or the value of the customer according to some model (step s4). For example, the OSS agent 31 will price urgent work low, so that it is easier for the mediator agents 28, 29 to buy it", therefore, the OSS agent determine the times to initiates and complete the bidding process in order to provide a service to a work item by reflecting its business priorities, see also figure 4 which illustrates the bidding process. See also figure 4.

24.   In response to argument (5). Examiner respectfully disagrees. BT teaches a first set of resources in Figure 3, Workgroup 1 e.g., a plurality of members. In addition, Mediator Agent 28 belongs to Workgroup 1, e.g., a first set of resources and Mediator Agent 29 belongs to Workgroup 2, e.g., a second set of resources as illustrated in figure 3.

25.   With regards to claims 56-77, 78, 79-88, 90 and 91-100. Examiner respectfully disagrees. See the response to arguments (1) through (5) and the rejection below.

26.   It is noted that the applicant did not challenge the officially cited facts in the previous office

action(s) therefore those statements as presented are herein after prior art.   Specifically it has

been established that it was old and well known in the art at the time of the invention that:

Claims 71and 95:

BT as shown discloses the following limitation:

- *wherein a number of work items to be put out for bid is a function of anticipated or*
  expected future work item surplus levels and wherein identities of which work items
  are to be put out for bid is a function of at least one of relative values of work items,
  skill levels of available resources in the second set of resources, and types of work
  items (¶ 0014 which teaches that "[t]he OSS agent 31 prices the work item using a

  cost function that reflects its business priorities, for example the urgency of the work"

  (e.g., anticipated or expected future work item surplus levels) "with respect to penalty

  clauses, or the value of the customer according to some model (step s4)." Further, in

  ¶ 0014-0017 teaches that "the OSS agent 31 provides a work item with a relatively

  high price P, indicating that the work item is categorized as desirable");

        BT does not expressly teaches a number of work items to be put out for bids as a

function of anticipated or expected future work item surplus levels. However Examiner takes

Official Notice that it is old and well known in the bidding arts to submit a number of work items

for bidding based on anticipated or expected future works item surplus levels as evidenced by

Morris et al., Sardine: Dynamic Seller Strategies in an Auction Marketplace, EC'00, ACM as

shown in page 6, col. 2, last paragraph "Beam et al. present pricing strategies for seller in a

single-item auction and examine these strategies in real auction settings. They discuss

extensions for N-item auction and propose strategies for managing inventory surplus". Therefore

it would have been obvious to one of ordinary skill in the art to modify BT in view of Philonenko to

include the teaching of Official Notice e.g., to put of for bidding surplus items, because the

claimed invention is merely a combination of old elements, and in the combination each element

merely would have performed the same function as it did separately, and one of ordinary skill in

the art would have recognized that the results of the combination were predictable.

As per **claim 83**, this claim encompasses substantially the same scope as claim 71. Accordingly,

claim 83 is rejected in substantially the same manner as claim 71, as described above.

Claim Rejections - 35 USC § 103

27.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness

rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as
set forth in section 102 of this title, if the differences between the subject matter sought to be
patented and the prior art are such that the subject matter as a whole would have been obvious
at the time the invention was made to a person having ordinary skill in the art to which said
subject matter pertains. Patentability shall not be negatived by the manner in which the invention
was made.

28.   Claims 55, 57-64, 67, 71, 74-76, 90-91, 95 and 98-100 and are rejected under 35 U.S.C. 103(a)

as being unpatentable over British Telecommunications, European Patent Application EP 1 246

097 A1, published on October 2, 2002, hereinafter "BT" in view of Philonenko (US 2002/0131399

A1) further in view of Official Notice.

Claim 55:

BT as shown discloses a method, the method comprising:

- *wherein the work items; are serviced by a first set of resources comprising a*

  plurality of members (Figure 3 illustrates a first set of resources (e.g., Workgroup 1)

  wherein a workgroup comprises a plurality of members (e.g., workers) and Figure 4

  illustrates in reference character s1 "Customer/Environment generate work item");

BT in figure 3 illustrates the structure of a work allocation system and figure 4 illustrates the

operation of figure 3 e.g., work items allocation. Further BT teaches in ¶ 0014, that mediators

"waits for the next offer on the next available work item s6" e.g., a queue of items. BT does not

expressly teach the following limitations. However, Philonenko in an analogous art of allocating

work items for the purpose of monitoring (¶ 0039) as shown does:

- *(a) a contact center providing a first queue to service work items; in the first queue;*

  (b) a processor receiving a first work item and a second work item into the first queue (Figures 3 and 4 illustrates a Call Waiting Queue e.g., first queue, with a plurality of work items e.g., calls 1 to 7 and ¶ 0027: "processing of queued events may be performed by a CTI processor");

- *(c) the processor monitoring the first queue for a plurality of wait times associated with enqueued work items in the first queue, an occupancy of the first queue, a number of available members of the first set of resources to service enqueued work items in the first queue, the types of enqueued contacts in the first queue, the priorities of enqueued contacts in the first queue, and anticipated workload levels for the members of the first set of resources* (¶ 0039: "[t]he CTI application monitors switch 21 for incoming calls to a routing or call distribution point. The status of telephones at agent stations is also monitored" (e.g., a number of available members), "so the application has access to real-time information as to which logged-in agents are busy on a call and which are not" (e.g., an occupancy of a selected queue, a number of available members), ¶ 0055 which teaches a type of enqueued contact e.g., call 2 requires a Spanish-speaking agent, ¶ 0111 which teaches that "[t]his concept may be practiced to help load balance busy agents without losing clients due to long waiting periods (e.g., a plurality of wait times of selected enqueued work items) and see also figures 3 and 4 which illustrates the priorities of enqueued contacts and anticipated work load levels "Calls Waiting Queue");

- *(d) based on the results of the monitoring step, the processor determining that the first enqueued work item in the first queue, cannot be serviced by the first set of resources* (Figure 4 illustrates that the first set of resources, e.g., agent 1 is busy, therefore the work item e.g., call is assigned to agent 2, see also ¶ 0060);

- *(f) based on the results of the monitoring step, the processor determining that the second enqueued work item, in the first queue, can be serviced by the first set of resources to meet a predetermined business policy, objective, or goal for a type of contact corresponding to the second enqueued work item* (¶ 0055: "[a]ssume call 2 requires a Spanish-speaking agent and is now being placed and that agent 3 is now reported busy with call 1 (last placed call) with the status of agents 1, 2, and 4 being unchanged. In this instance, call 2 (now call 1) would be routed to agent 4.");

Therefore, it would have been obvious to one of ordinary skill in the art to modify BT to include the teaching of Philonenko e.g., monitoring because the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

Further, BT teaches:

- *(e) based on the results of the monitoring step, the processor determining that the first enqueued work, in the first queue, must be put up for bid to meet a predetermined business policy, objective or goal for a type of contact corresponding to the first enqueued work items* (¶ 0014 which teaches that "[t]he OSS agent 31 prices the work item" (e.g., a first enqueued work item in the first queue for a bid) "using a cost function that reflects its business priorities for example the urgency to work with respect to penalty clauses" (e.g., to meet a predetermined business policy, objective or goal for a type of contact), "or the value of the customer according to some model (step s4).);

- *(g) the processor determining the times to initiate and complete the bidding process, wherein the time is a function of an estimation of when the predetermined business policy, objective, or goal will be violated in the absence of servicing of the first work item* (¶ 0014 which teaches that "[t]he OSS agent 31 prices the work item

using a cost function that reflects its business priorities, for example the urgency to

work with respect to penalty clauses" (e.g., violation in the absence of servicing the

first work item), "or the value of the customer according to some model (step s4).

For example, the OSS agent 31 will price urgent work low, so that it is easier for the

mediator agents 28, 29 to buy it", therefore, the OSS agent determine the times to

initiates and complete the bidding process in order to provide a service to a work

item by reflecting its business priorities, see also figure 4 which illustrates the

bidding process);

- *(h) the processor requesting a first member and a second members of a second set
  of resources to submit a bid to service the first work item* (¶ 0014 which teaches
  that "[t]he mediator agent 29 for the second workgroup 21" (e.g., a second set of
  resources) "also determines that it can allocate the work item to its workers," (e.g.,
  submit a bid to service the first work item) "who are not very busy, so that the work
  item will assist the workgroup in reaching its targets. The second mediator agent 29
  is therefore prepared to offer P+10 for the work item. In this case, the OSS agent
  31 accepts the offer of P+10 from the second mediator agent 29 and allocates the
  work item to it" wherein "[t]he mediator agent 29 then allocates/sells the work on to
  the workers (step s15)" (e.g., the first and second members of the second set or
  resources), see also figure 4);

- *(i) the processor receiving a first bid, from the first member and a second bid from
  the second member, to service the first work item* (¶ 0014 which teaches that "[t]he
  OSS agent 31 receives bids" (e.g., first and second bids) "from all workgroups"
  (e.g., from the first and second members) "and determines how many bids it has
  received for the work item" (e.g., the first work item), see also figure 4);

- *(j) the processor comparing the first bid and second bid; (k) based on the
  comparison, the processor selecting the first bid;* (¶ 0014 which teaches that "[i]f

more than one mediator agent makes a bid (step s11) the OSS agent 31 accepts the bid at the highest price" therefore in order to select the highest price a comparison between bids have been made by the OSS agent, see also figure 4);

- *and (i) the processor assigning the first work item to the first member for servicing* (Figure 4 which it illustrates in reference s15 "[a]llocate work item to workers" (e.g., the first work item to the first member));

Claim 57:

BT as shown discloses the following limitation:

- *wherein bids are requested only during a first operational mode in which bidding is performed and not in a second operational mode in which bidding is not performed, the first and second operational modes are discrete from each other* (Figure 4, which it illustrates a first operational mode in which bidding is performed (e.g., "s9" through "s15") and a second operational mode in which bidding is not performed (e.g., "s8" and "s6") where both modes are being temporally discrete from each other);

Claim 58:

BT teaches that "the mediator agent 28, 29 calculates whether the allocation of the work will meet its local business priorities, for example targets for total work time for its workgroup and therefore whether it should make a bid at all (step s8). As a result of the calculation, the mediator agent 28, 29 for the workgroup may decide not to bid for the work (step s8)," (BT, ¶ 0014) BT does not expressly teach the following limitations. However Philonenko in an analogous art of work allocation for the purpose of monitoring a predetermined workload level (Figure 3, ¶ 0039), as shown does:

- *wherein the monitoring step (c) and determining step (d) comprise the substeps: the processor monitoring at least the first queue of work items* (¶0039: which teaches that "[t]he CTI application monitors switch 21 for incoming calls to a routing or call-

distribution point" as shown in Figure 3 "Call Waiting Queue", see also figure 4 and
¶ 0058-0060);

- *the first queue of work items corresponding to a first set of internal resources for servicing work items in the at least one queue; and* (Figure 3, which teaches a first set of resources available (e.g., Agent 3 or Agent 2) for servicing work items in the queue (e.g., first queue));

- *the processor determining when a predetermined workload level exists in the first queue* (¶ 0129 and ¶ 0039: which teaches that "the priority queue limit in switch 135 at center 117 is 10 calls" (e.g., a predetermined workload level). Further, Philonenko teaches that "[t]he status of telephones at agent stations is also monitored, so the application has access to real-time information as to which logged-in agents are busy on a call and which are not. The application operates to command switch 21 to distribute calls on a FIFO basis to logged-in available agents");

Therefore, it would have been obvious to one of ordinary skill in the art to modify BT to include the teaching of Philonenko because as explained above in claim 55.

Claim 59:

BT as shown discloses the following limitation:

- *wherein the predetermined workload level exists when there is a likelihood that a service goal for at least one work item in the first queue will not be satisfied* (¶ 0014 which teaches that ""[t]he OSS agent 31 prices the work item using a cost function that reflects its business priorities, for example the urgency of the work with respect to penalty clauses," (e.g., a service goal for at least one work item in the first queue will not be satisfied) "or the value of the customer according to some model (step s4). For example, the OSS agent 31 will price urgent work low," (e.g., a

predetermined workload level exists) "so that it is easier for the mediator agents 28, 29 to buy it");

Claim 60:

BT does not expressly teach the following limitations. However Philonenko in an analogous art of work allocation for the purpose of providing a predetermined workload level (Figure 3, ¶ 0039), as shown does:

- *wherein the predetermined workload level exists when a queue position in the first queue is less than a number of work items ahead of the queue position in the first queue* (¶ 0051: which teaches that "a broad variety of rules and conditions" (e.g., the first queue is less than a number of work items) "with regards to agents such as incorporating various sub-states such as E-mail duties, setting interrupt rules for particular agents, and so on." Philonenko teaches that based on predetermined rules and conditions, "an agent residing at agent station 33 may be reported busy because he is answering E-mails and cannot be interrupted by a telephone call unless it is of priority 7 or above. In this case, if there are no other agents available to take the priority 7 call, it will be routed to the agent at agent station 33. He will accept the call and suspend his E-mail duty until he has disposed of the call, and so on.")

Therefore, it would have been obvious to one of ordinary skill in the art to modify BT to include the teaching of Philonenko because as explained above in claim 55.

Claim 61:

BT as shown discloses the following limitation:

- *determining a number and identities of work items to be presented for bidding to the second set of resources* (¶ 0014 "the mediator agent 28, 29 calculates whether the allocation of the work will meet its local business priorities, for example targets for

total work time for its workgroup" (e.g., workgroup 1 or 2, which both include

members/workers) "and therefore whether it should make a bit at all (step s8));

Claim 62:

BT as shown discloses the following limitation:

- *wherein the selecting step (k) comprises: comparing the received bids with a*
  maximum acceptable bid (¶ 0014 which teaches that "[i]f more than one mediator
  agent makes a bid (step s11), the OSS agent 31 accepts the bid at the highest
  price (step s13));

Claim 63:

BT as shown discloses the following limitation:

- *wherein the selecting step (k) comprises: determining, for each bidding resource in*
  the second set of resources, a composite value reflecting a plurality of a work item
  value, a resource value and a bid (Figure 3 illustrates a second set of resources
  (e.g., Workgroup 2), ¶ 0015-0016 which teaches that "[t]he mediator agent 29 then
  allocates/sells the work on to the workers (step s15)" wherein workers bid for a
  work item, further, "[t]he mediator agent 28, 29 prices work based on two factors,
  the value of the work to the overall business" (e.g., a plurality of a work time value)
  "as expressed by the OSS agent 31, namely the cost price to the mediator and a
  model of the impact of a particular agent performing a piece of work on the overall
  efficiency of the team" (e.g., a resource value), see also ¶ 0027 which disclose a
  composite value);

- *and comparing the determined composite values to select a member from the*
  second set of resources to service the first work item (¶ 0017 which teaches a
  comparison between two workers, wherein the work item is assigned to the worker
  (e.g., a member) that would most efficiently perform the work);

Claim 64:

BT as shown discloses the following limitation:

- *further comprising after the receiving step (f): determining whether or not a workload level for the contact center requires the first work item that is the subject of the received bids to be serviced by a member in the second set of resources* (¶ 0014 which teaches that "[t]he mediator agent 28 for the first workgroup 20 determines that it can allocate the work item to its workers, but its workgroup is relatively busy and cannot do the work urgently. It is therefore prepared to offer P for the work item. The mediator agent 29 for the second workgroup 21 also determines that it can allocate the work item to its workers, who are not very busy, so that the work item will assist the workgroup in reaching its targets." BT teaches that when the first set is not available the second set bid for the work item);

Claim 67:

BT as shown discloses the following limitation:

- *wherein the bid is at least one of a monetary service fee, a service time, an opportunity cost to the contact center for servicing the work item, and an overhead cost to the contact center for servicing the work item* (¶ 0014: "the OSS agent 31 accepts the bid at the highest price" (e.g., a monetary service fee));

Claims 71 and 95:

BT as shown discloses the following limitation:

- *wherein a number of work items to be put out for bid is a function of anticipated or expected future work item surplus levels and wherein identities of which work items are to be put out for bid is a function of at least one of relative values of work items, skill levels of available resources in the second set of resources, and types of work items* (¶ 0014 which teaches that "[t]he OSS agent 31 prices the work item using a cost function that reflects its business priorities, for example the urgency of the work"

(e.g., anticipated or expected future work item surplus levels) "with respect to penalty clauses, or the value of the customer according to some model (step s4)." Further, in ¶ 0014-0017 teaches that "the OSS agent 31 provides a work item with a relatively high price P, indicating that the work item is categorized as desirable");

BT does not expressly teaches a number of work items to be put out for bids as a function of anticipated or expected future work item surplus levels. However Examiner takes Official Notice that it is old and well known in the bidding arts to submit a number of work items for bidding based on anticipated or expected future works item surplus levels as evidenced by Morris et al., Sardine: Dynamic Seller Strategies in an Auction Marketplace, EC'00, ACM as shown in page 6, col. 2, last paragraph "Beam et al. present pricing strategies for seller in a single-item auction and examine these strategies in real auction settings. They discuss extensions for N-item auction and propose strategies for managing inventory surplus". Therefore it would have been obvious to one of ordinary skill in the art to modify BT in view of Philonenko to include the teaching of Official Notice e.g., to put of for bidding surplus items, because the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

Claim 74:

BT as shown discloses the following limitation:

- *wherein step (k) comprises the sub-steps: (K1l) calculating, respectively, first and second composite values for the first and second members based on a plurality of a value of the first work item, the respective bid, and a skill level, experience level, and/or value of the member; and* (Figure 3 illustrates a second set of resources (e.g., Workgroup 2), ¶ 0015-0016 which teaches that "[t]he mediator agent 29 then allocates/sells the work on to the workers (step s15)" wherein workers bid for a work item, further, "[t]he mediator agent 28, 29 prices work based on two factors, the value of the work to the overall business" (e.g., a plurality of a work time value) "as

expressed by the OSS agent 31, namely the cost price to the mediator and a model
of the impact of a particular agent performing a piece of work on the overall efficiency
of the team" (e.g., a resource value: skill level, experience level, and/or value of the
member), see also ¶ 0027 which disclose a composite value);

- *(k2) comparing the first and second composite values* (¶ 0017 which teaches a
  comparison between two workers, wherein the work item is assigned to the worker
  (e.g., a resource) that would most efficiently perform the work);

Claim 75:

BT as shown discloses the following limitation:

- *each resource value range having a different acceptable bid threshold* (¶ 0016-0017
  which teaches that "[t]he mediator agent 28, 29 prices work based on two factors, the
  value of the work to the overall business as expressed by the OSS agent 31, namely
  the cost price to the mediator and a model of the impact of a particular agent
  performing a piece of work on the overall efficiency of the team" (e.g., a resource
  value). BT teaches that each worker have a different acceptable bid threshold based
  on a model of the impact of a particular agent toward the overall efficiency of the
  team);

BT does not expressly teach the following limitation. However, Philonenko in an analogous art of
allocating work items for the purpose of mapping a resource value (¶ 0039) as shown does:

- *wherein steps (k) and (l) are performed by mapping a resource value of the first
  member against a resource value range* (Figures 3-4 illustrates the resource value of
  each agent e.g., Agent 2, Priority Level 6 accepted, and ¶ 0060 teaches that "[a]gent
  2 is busy with a priority 6 call and can be interrupted with a lower priority call" "[a]gent
  2 is now free to accept call 1". Further in ¶ 0037 Philonenko "assign priority to
  incoming calls and to route alls to agents at the call center based on the assigned

priority, together with information about agent skills" (e.g., resource value) "and status".)

Therefore, it would have been obvious to one of ordinary skill in the art to modify BT to include the teaching of Philonenko e.g., monitoring because the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

Claim 76:

BT as shown discloses the following limitation:

- *each work item value range having a different acceptable bid threshold* (¶ 0014: "the OSS agent 31 provides a work item with a relatively high price P, indicating that the work item is categorized as desirable", further "[t]he OSS agent 31 prices the work items using a cost function that reflects its business priorities");

BT does not expressly teach the following limitation. However, Philonenko in an analogous art of allocating work items for the purpose of mapping a resource value (¶ 0039) as shown does:

- *wherein steps (k) and (l) are performed by mapping a work item value of the first work item against a work item value range* (¶ 0054-0055 which teaches a work item value that requires a Spanish-speaking agent wherein it is assigned to Agent 2);

Therefore, it would have been obvious to one of ordinary skill in the art to modify BT to include the teaching of Philonenko e.g., monitoring because the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

As per **claim 90**, the claim encompasses substantially the same scope as claim 55. Accordingly, claim 90 is rejected in substantially the same manner as claim 55, as described above.

As per **claim 91**, the claim encompasses substantially the same scope as claim 56. Accordingly, claim 91 is rejected in substantially the same manner as claim 56, as described below.

As per **claim 98**, these claims encompass substantially the same scope as claim 74. Accordingly, claim 98 are rejected in substantially the same manner as claim 74, as described above.

As per **claim 99**, these claims encompass substantially the same scope as claim 75. Accordingly, claim 99 are rejected in substantially the same manner as claim 75, as described above.

As per **claim 100**, these claims encompass substantially the same scope as claim 76. Accordingly, claim 100 are rejected in substantially the same manner as claim 76, as described above.

29.   Claims 56, 78-80, 83 and 86 are rejected under 35 U.S.C. 103(a) as being unpatentable over British Telecommunications, European Patent Application EP 1 246 097 A1, published on October 2, 2002, hereinafter "BT" in view of Philonenko (US 2002/0131399 A1) and Official Notice as applied to claims 55, 57-64, 67, 71, 74-76, 90-91, 95 and 98-100 further in view of Shaffer et al., (US 6,546,087 B2) hereinafter "Shaffer".

Claim 56:

BT as shown discloses the following limitation:

- *wherein the first set of resources comprises a plurality of resources internal to a contact center, wherein the second set of resources comprises a plurality of resources external to the contact center network* (¶ 0003, 0006, 0011 and Figure 3, which teaches that "a work allocation system for allocating work items between a plurality of workgroups" (e.g., different set of resources), "comprising a work source agent for providing a work item and a plurality of mediator agents, each associated with a respective workgroup, wherein each of the mediator agents is configured to request the work item from the work source agent in dependence on preference data for its respective workgroup.". Further, "[o]nce a work item is acquired, the mediator agent for a given workgroup can offer the work item to each of the workers in the workgroup". Figure 3 illustrates two workgroups, Workgroup 1 and Workgroup 2,

where "[t]he OSS 2 is provided with, or generates, a definition of a work project to be carried out by one or more workgroups 20, 21. Each workgroup 20, 21 includes a plurality of workers 22-24; 25-27, each of whom has access to a workgroup terminal 4, 5. Each of the workgroup terminals 4, 5 runs a software program referred to herein as a mediator agent 28,29, which is capable of communicating with the OSS 2 and each of a plurality of workers 22 - 27 in the workgroups 20, 21 via a graphical user interface (gui).");

- *wherein the work item is a contact from a customer* (¶ 0012: which teaches that "[c]ustomers 32, or the environment 33, generate work items that are acquired by the work item handler 30, for example a customer handling system, maintenance schedule or fault detector");

- *and wherein the first work item is placed into a second queue of multiple work items for the second set of resources* (¶ 0014 which teaches that "the mediator agent 28, 29 for the workgroup may decide not to bid for the work (step s8), but instead waits for the next offer on the next available work item (step s6)" where BT teaches that a first work item is in a queue of multiple work items in order to wait for the next offer (e.g., work item));

BT does not expressly teach that workgroup 1 are not employees of the contact center, neither workgroup 2 are employees of the contact center. BT teaches that "a work allocation system for allocating work items between a plurality of workgroups" (e.g., different set of resources), "comprising a work source agent for providing a work item and a plurality of mediator agents, each associated with a respective workgroup" (BT, ¶ 0003). However, it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify BT by assigning a plurality of resources internals to a contact center as workgroup 1 and a plurality of resources external to a contact center as workgroup 2 because "[e]ach workgroup 20, 21 includes a plurality of workers 22-24; 25-27, each of whom has access to a workgroup terminal 4, 5. Each of the

workgroup terminals 4, 5 runs a software program referred to herein as a mediator agent 28, 29, which is capable of communicating with the OSS 2 and each of a plurality of workers 22 - 27 in the workgroups 20, 21 via a graphical user interface (gui)." (BT, ¶ 0011) In addition, it is old and well know in work allocation art to outsource resources in order to lower cost and to minimize unanswered and unattended inbound calls.

BT teaches in ¶ 0014, that mediators "waits for the next offer on the next available work item s6" e.g., a queue of items. Philonenko teaches in ¶ 0044: "an incoming call may be first connected to an IVR for the purpose of determining a client's intent, and then the system may assign priority and place the call in the queue according to the elicited information, or in conjunction with other information." And ¶ 0129: "Once the priority queue if full then the DN is marked unavailable unless a higher priority request comes in. If this happens, a lowest priority call in queue is either transferred to an overflow queue, to an IVR, or it may be dumped." BT and Philonenko are silent about a second queue. However, Shaffer in an analogous art of allocating work items for the purpose of providing a second queue (col. 7, lines 65-67 to col. 8, lines 1-6) as shown does:

- *a second queue* (col. 7, lines 65-67 to col. 8, lines 1-6: "the IVR techniques may be employed within a ToL-based ACD system. After the routing system determines the appropriate agent queue that is to handle a customer call, the ACD system transmits an H.323 camp-on request containing the telephone number of the customer to the ToL server that supports the selected agent group queue. IVR prompts are used to collect the necessary information for selecting the agent group queue and for returning the call");

Therefore, it would have been obvious to one of ordinary skill in the art to modify BT in view of Philonenko to include the teaching of Shaffer e.g., a second queue and routing, because the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

Claim 78:

The limitations of claim 78 encompass substantially the same scope as claim 55. Accordingly, those similar limitations are rejected in substantially the same manner as claim 55, as described above. The following are the limitations of claim 78 that differ from claim 55.

BT as shown discloses a contact center, the contact center comprising:

- *a memory operable to store one or more computer executable instructions* (Figure 2)

- *a processor in communication with the first queue, the second queue, and the memory, the processor operable to execute the computer executable instructions, wherein the processor executes the computer executable instructions to execute* (Figures 1 and 2)

- *a second sets of resources to service work items; the second set of resources comprising a plurality of members* (Figure 3 illustrates a second set of resources (e.g., Workgroup 2) wherein a workgroup comprises a plurality of members (e.g., workers));

- *the workload monitoring agent operable to send the first work item to a bid item selecting agent* (Figure 4);

- *the bid item selecting agent operable* (Figures 3 and 4)

BT in figure 3 illustrates the structure of a work allocation system and figure 4 illustrates the operation of figure 3 e.g., work items allocation. Further BT teaches in ¶ 0014, that mediators "waits for the next offer on the next available work item s6" e.g., a queue of items. Philonenko teaches in ¶ 0044: "an incoming call may be first connected to an IVR for the purpose of determining a client's intent, and then the system may assign priority and place the call in the queue according to the elicited information, or in conjunction with other information." And ¶ 0129: "Once the priority queue if full then the DN is marked unavailable unless a higher priority request

comes in. If this happens, a lowest priority call in queue is either transferred to an overflow queue, to an IVR, or it may be dumped." BT and Philonenko are silent about a second queue. However, Shaffer in an analogous art of allocating work items for the purpose of providing a second queue and routing (col. 7, lines 65-67 to col. 8, lines 1-6) as shown does:

- *a second queue to hold work item; in the second queue; to queue the first work item in the second work queue for the first member* (col. 7, lines 65-67 to col. 8, lines 1-6: "the IVR techniques may be employed within a ToL-based ACD system. After the routing system determines the appropriate agent queue that is to handle a customer call, the ACD system transmits an H.323 camp-on request containing the telephone number of the customer to the ToL server that supports the selected agent group queue. IVR prompts are used to collect the necessary information for selecting the agent group queue and for returning the call");

Therefore, it would have been obvious to one of ordinary skill in the art to modify BT in view of Philonenko to include the teaching of Shaffer e.g., a second queue and routing, because the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

As per **claim 79**, this claim encompasses substantially the same scope as claim 56. Accordingly, those similar limitations are rejected in substantially the same manner as claim 56, as described above.

As per **claim 83**, this claim encompasses substantially the same scope as claim 71. Accordingly, claim 83 is rejected in substantially the same manner as claim 71, as described above.

As per **claim 86**, this claim encompasses substantially the same scope as claim 74. Accordingly, claim 86 is rejected in substantially the same manner as claim 74, as described above.

As per **claim 87**, this claim encompasses the same scope as claim 75. Accordingly, claim 87 and is rejected in substantially the same manner as claim 75, as described above.

As per **claim 88**, this claim encompasses the same scope as claim 76. Accordingly, claim 88 is rejected in substantially the same manner as claim 76, as described above.

30. Claims 65-66, 72-73, 92 and 96-97 are rejected under 35 U.S.C. 103(a) as being unpatentable over British Telecommunications, European Patent Application EP 1 246 097 A1, published on October 2, 2002, hereinafter "BT" in view of Philonenko (US 2002/0131399 A1) further in view of Official Notice as applied to claims 55, 57-64, 67, 71, 74-76, 90-91, 95 and 98-100 above further in view of Borissov et al., (US 2002/0029213 A1) hereinafter "Borissov".

Claim 65:

BT as shown discloses the following limitation:

- *and receiving, from the at least one member, an additional bids after the displaying step* (¶ 0014: "[t]he OSS agent 31 receives bids from all workgroups);

BT provides offers to mediator agents (BT, figure 4). Philonenko teaches that "[s]tations 147-153 are equipped with agent-operated personal computer/video display units" (¶ 0075). The combination of BT and Philonenko do not expressly teach displaying bids information to the resources. However, Borissov in an analogous art of allocating work items for the purpose of displaying information (¶ 0091) as shown does:

- *displaying at least one of the first and second bid and/or information associated with the at least one of the first and second bids to at least one member in the second set of resources* (¶ 0091: "[t]he list displays basic information such as opening and closing times for bidding and time remaining until closing for each need");

Therefore, it would have been obvious to one of ordinary skill in the art to modify BT in view of Philonenko to include the teaching of Borissov because the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed

the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

Claim 66:

BT as shown discloses the following limitation:

- *wherein at least some of the resources are human agents* (figure 3, workers 22, 23, 24, 25, 26 and 27);

- *wherein members of the first set of resources are employees of a contact center, wherein the members of the first set of resources are subscribers to an enterprise network defined by the contact center, wherein the members of the second set of resources are not employees of the contact center, wherein the members of the second set of resources are not subscribers to an enterprise network defined by the contact center, and wherein steps (g)-(l) are performed when the first set of resources is unable to service the contact as required by contact center policies, objectives, and/or goals, the first set of resources being employees of the contact center and subscribers of the enterprise network* (¶ 0003, 0006, 0011 and Figure 3, which teaches that "a work allocation system for allocating work items between a plurality of workgroups" (e.g., first and second set of resources), "comprising a work source agent for providing a work item and a plurality of mediator agents, each associated with a respective workgroup, wherein each of the mediator agents is configured to request the work item from the work source agent in dependence on preference data for its respective workgroup.". Further, "[o]nce a work item is acquired, the mediator agent for a given workgroup can offer the work item to each of the workers in the workgroup". Figure 3 illustrates two workgroups, Workgroup 1 and Workgroup 2, where "[t]he OSS 2 is provided with, or generates, a definition of a work project to be carried

out by one or more workgroups 20, 21. Each workgroup 20, 21 includes a plurality of workers 22-24; 25-27, each of whom has access to a workgroup terminal 4, 5. Each of the workgroup terminals 4, 5 runs a software program referred to herein as a mediator agent 28,29, which is capable of communicating with the OSS 2 and each of a plurality of workers 22 - 27 in the workgroups 20, 21 via a graphical user interface (gui).");

BT does not expressly teach that workgroup 1 are not employees of the contact center, neither workgroup 2 are employees of the contact center. BT teaches that "a work allocation system for allocating work items between a plurality of workgroups" (e.g., first and second set of resources), "comprising a work source agent for providing a work item and a plurality of mediator agents, each associated with a respective workgroup" (BT, ¶ 0003). However, it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify BT by assigning a set of resources that are employees of the contact center to workgroup 1 and a set of resources that are not employees of the contact center to workgroup 2 because "[e]ach workgroup 20, 21 includes a plurality of workers 22-24; 25-27, each of whom has access to a workgroup terminal 4, 5. Each of the workgroup terminals 4, 5 runs a software program referred to herein as a mediator agent 28, 29, which is capable of communicating with the OSS 2 and each of a plurality of workers 22 - 27 in the workgroups 20, 21 via a graphical user interface (gui)." (BT, ¶ 0011) In addition, it is old and well know in work allocation art to outsource resources in order to lower cost and to minimize unanswered and unattended inbound calls.

As per **claim 92**, these claims encompass substantially the same scope as claim 66. Accordingly, claim 92 is rejected in substantially the same manner as claim 66, as described above.

Claim 72:

The combination of BT and Philonenko do not expressly teach the following limitations. However, Borissov in an analogous art of allocating work items for the purpose of displaying information (¶ 0091) as shown does:

- *wherein steps (h) and (i) comprise: publishing on work stations of the first member and the second members of the second set of resources a plurality of a description of the first work item, an acceptable bid threshold, a closure time for bidding, an indication whether bids may be changed by a bidder, and how many times a bid may be changed by a bidder* (¶ 0091-0092 which teaches "[t]he list displays basic information such as opening and closing times for bidding and time remaining until closing for each need", "all current bids together with the associated preferences indicated by each bidder will be displayed to participants consultants" (e.g., the first member and the second members of the second set of resources). See also Figure 2);

- *when a bid is received, providing the bidder with an indication whether or not his bid is less than, greater than or equal to an acceptable bid threshold* (¶ 0044 and Figure 2 illustrates after submitting a bid the option to increase a bid);

Therefore, it would have been obvious to one of ordinary skill in the art to modify BT in view of Philonenko to include the teaching of Borissov because as discussed above in claim 65.

As per **claim 96**, these claims encompass substantially the same scope as claim 72. Accordingly, claim 96 is rejected in substantially the same manner as claim 72, as described above.

Claim 73:

BT as shown discloses the following limitation:

- *wherein the acceptable bid threshold is a function of one or more of a value of the work item that is the subject of the bid, a cost for a member of the second set of resources to service the work item that is the subject of the bid, and an amount of surplus work items to be serviced* (¶ 0014 which teaches that "[i]f more than one mediator agent makes a bid (step s11) the OSS agent 31 accepts the bid at the highest price" (e.g., the value of the work item));

As per **claim 97**, these claims encompass substantially the same scope as claim 73. Accordingly, claim 97 are rejected in substantially the same manner as claim 73, as described above.

31.   Claim 68 is rejected under 35 U.S.C. 103(a) as being unpatentable over British Telecommunications, European Patent Application EP 1 246 097 A1, published on October 2, 2002, hereinafter "BT" in view of Philonenko (US 2002/0131399 A1) further in view of Official Notice as applied to claims 55, 57-64, 67, 71, 74-76, 90-91, 95 and 98-100 in view of Spraetz, Out with the new, in with the old: A look at scheduling alternatives, Customer Inter@ction Solutions; Nov. 2001: 20,5.

Claim 68:

BT and Philonenko do not expressly teach the following limitation. However, Spraetz in an analogous art of allocating work items for the purpose of schedule bidding (page 48, column 1, 2nd ¶) as shown does:

- *wherein a plurality of work items are put out for bid and further comprising: dynamically varying a bidding time for each of the plurality of work items* (page 50, 2nd column, 3rd ¶ which teaches that "the effects of agent turnover and changes in contact volumes" (e.g., a plurality of work items) are put out for bid (e.g., schedule bidding) during a "bid cycle" (e.g., dynamically varying a bidding time) "to fill in the gaps");

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to bit a plurality of work items by dynamically varying a bidding time (e.g., bid cycle) as taught by Spraetz, to improve Philonenko, thereby giving the predictable result of optimizing "resource use and meet service goals." (Spraetz, page 50, 1st column, 3rd ¶).

32. Claims 69-70 and 93-94 are rejected under 35 U.S.C. 103(a) as being unpatentable over British

Telecommunications, European Patent Application EP 1 246 097 A1, published on October 2,

2002, hereinafter "BT" in view of Philonenko (US 2002/0131399 A1) further in view of Official

Notice as applied to claims 55, 57-64, 67, 71, 74-76, 90-91, 95 and 98-100 above further in view

of Faber et al., (US 6,519,570 B1) hereinafter "Faber".

Claim 69:

BT teaches that "the mediator agent 28, 29 for the workgroup may decide not to bid for the work

(step s8), but instead waits for the next offer on the next available work item (step s6)" where BT

teaches that a first work item is in a queue of multiple work items in order to wait for the next offer

(e.g., work item)); (BT, ¶ 0014). BT does not expressly teaches the following limitations, however,

Philonenko in an analogous art of allocating work items for the purpose of determining queue

positions (Figures 3 and 4) as shown does:

- *wherein at least one of steps (g) and (h) comprise: determining a required queue*
  position for each work item in the first queue, wherein the required queue position
  indicates that a service-time goal of the respective work item$_i$ is met only when the
  respective work item$_i$ is serviced by a one of the next "N$_i$" resources in the first set of
  resources to become available to service work items in the first queue (Figures 3 and
  4 illustrates the required queue position for each work item indicating when a
  resource is available to service the work item in a first queue);

- *and for each queue position "i" in the queue representation, summing the work items*
  in queue positions 1 to N$_i$; and for each queue position "N$_i$" when the sum is greater
  than N$_i$, performing steps (h) - (l) (¶ 0043-0045 which teaches that "information may
  be elicited from callers (clients) at processing points in the network, and the
  information transferred to the call center with or ahead of the call. This information
  may be sorted and used according to preprogrammed rules to assign priority. [...]
  Many such possibilities are extant for priority determination and assignment. ");

Therefore, it would have been obvious to one of ordinary skill in the art to modify BT to include the teaching of Philonenko because as explained above in claim 55.

The combination of BT and Philonenko do not expressly teach the following limitation. However, Faber in an analogous art of conducting a time action for the purpose of generating a queue representation (col. 5, lines 25-29) as shown does:

- *generating a representation of a queue, the representation reflecting a required queue positions for the work items in the first queue* (col. 5, lines 25-29 which teaches that "a graphical representation of the customer's position 1121 in the queue 1120")

Therefore, it would have been obvious to one of ordinary skill in the art to modify BT in view of Philonenko to include the teaching of Faber because the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

As per **claim 93**, these claims encompass substantially the same scope as claim 69. Accordingly, claim 93 are rejected in substantially the same manner as claim 69, as described above.

Claims 70and 94:

BT as shown discloses the following limitation:

- *wherein a number by which a sum exceeds Ni is a number of work items to be put out for bid and an initial queue position in the representation of a queue at where the sum is greater than Ni, is used to determine a time available for the bidding process to be completed* (¶ 0014 which teaches that "[t]he OSS agent 31 prices the work item using a cost function that reflects its business priorities, for example the urgency to work with respect to penalty clauses" (e.g., violation in the absence of servicing the first work item), "or the value of the customer according to some model (step s4). For example, the OSS agent 31 will price urgent work low, so that it is easier for the

mediator agents 28, 29 to buy it", therefore, the OSS agent determine the times to

initiates and complete the bidding process in order to provide a service to a work item

by reflecting its business priorities);

33.   Claims 80 and 84-85 are rejected under 35 U.S.C. 103(a) as being unpatentable over British

Telecommunications, European Patent Application EP 1 246 097 A1, published on October 2,

2002, hereinafter "BT" in view of Philonenko (US 2002/0131399 A1), Official Notice and Shaffer

et al., (US 6,546,087 B2) hereinafter "Shaffer" as applied to claims 78-80 and 86 above further in

view of Borissov et al., (US 2002/0029213 A1) hereinafter "Borissov".

As per **claim 80**, this claim encompasses substantially the same scope as claim 66. Accordingly,

claim 80 is rejected in substantially the same manner as claim 66, as described above.

As per **claim 84**, these claims encompass substantially the same scope as claim 72. Accordingly,

claim 84 is rejected in substantially the same manner as claim 72, as described above.

As per **claim 85**, these claims encompass substantially the same scope as claim 73. Accordingly,

claim 85 are rejected in substantially the same manner as claim 73, as described above.

34.   Claims 81-82 are rejected under 35 U.S.C. 103(a) as being unpatentable over British

Telecommunications, European Patent Application EP 1 246 097 A1, published on October 2,

2002, hereinafter "BT" in view of Philonenko (US 2002/0131399 A1), Official Notice and Shaffer

et al., (US 6,546,087 B2) hereinafter "Shaffer" as applied to claims 78-80 and 86 above further in

view of Faber et al., (US 6,519,570 B1) hereinafter "Faber".

As per **claim 81**, these claims encompass substantially the same scope as claim 69. Accordingly,

claim 81 is rejected in substantially the same manner as claim 69, as described above.

As per **claim 82**, these claims encompass substantially the same scope as claim 70. Accordingly,

claim 82 is rejected in substantially the same manner as claim 70, as described above.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry of a general nature or relating to the status of this application or concerning this communication or earlier communications from the Examiner should be directed to **Nadja Chong** whose telephone number is **571.270.3939.** The Examiner can normally be reached on Monday-Friday, 9:30am-5:00pm. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, **BETH BOSWELL** can be reached at **571.272.6737.**

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://portal.uspto.gov/external/portal/pair <http://pair-direct.uspto.gov >. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at **866.217.9197** (toll-free).

Any response to this action should be mailed to:

Commissioner of Patents

P.O. Box 1450

Alexandria, VA 22313-1450

or faxed to **571-273-8300.**

Hand delivered responses should be brought to the **United States Patent and Trademark Office Customer Service Window**:

Randolph Building

401 Dulany Street

Alexandria, VA 22314.

/Nadja Chong/

Examiner, Art Unit 3623

/Beth V. Boswell/

Supervisory Patent Examiner, Art Unit 3623